Author Index — Volume 1

Alexander, H.
Editor's Note — Call for Papers, 1
The Editor's Corner: A Question of Ethics, 91
—; See Meislin, R. J., 13
—; See Ricci, J. L., 103
Anderson, J. M. See Schoen, F. J., 49
Andriano, K. P. See Daniels, A. U., 57

Bagby, M.
—; Marshall, S. J.; Marshall, G. W., Jr.: Effects of porcelain application procedures on two noble alloys, 31
Bajpai, P. K. See Benghuzzi, H. A., 233
Batich, C.
—; King, R.; Williams, J.: Response to Hum et al. (Letter to the Editor), 195
Becker, D. G. See Bond, R. F., 39
Benghuzzi, H. A.
—; Bajpai, P. K.; England, B. G.: Long-term delivery of testosterone by ALCAP ceramic implants in rats, 233
Black, J.
—; Recum, A. F. von; Satris, S. A.: Conference report: Ethical issues at the Interface between Engineering and Medicine, March 30, 1990, Clemson, South Carolina, 253
The editor's corner: New (and improved?) versus tried and true — a biomedical dilemma, 329
Blais, P.
Letter to the Editor, 197
Bond, R. F.
—; McGregor, W.; Cutler, P. V.; Becker, D. G.; Thacker, J. G.; Edlich, R. F.: Influence of Needle Holder Jaw Configuration on the Biomechanics of Curved Surgical Needle Bending, 39
Bunshah, R. F. See Kossovsky, N., 289

Calahan, T. J.
News from the FDA — FDA 510(k) sterility review guidance, 187
—; See Koeneman, J., 79
Carlstedt, C. See Meislin, R. J., 13
Casar, R. See Meislin, R. J., 13
Chang, M. K. O. See Daniels, A. U., 57
Charara, J.
—; Guidoin, R.; Gill, F.; Guzman, R.: Morphologic assessment of ePTFE graft wall damage following hemodialysis needle punctures, 279
Chiang, C. T.
—; Liou, F. J.; Niu, G. C. C.; Fu, Y. A.; Wang, Y. J.: A poly-HEMA based aqueous humor draining device, 321
Christel, P.
—; Meunier, A.; Therin, M.: A method of analysis of cellular distribution in the membrane encapsulating surgically implanted biomaterials, 205
Christiansen, D. See Wong, E., 225
Cock, D. J. See Truong, V.-T., 21
Cunningham, T. See Meislin, R. J., 13
Cutler, P. V. See Bond, R. F., 39

Daniels, A. U. "Dan"
Applied biomaterials standards report, 93
Applied biomaterials standards report, 191
Applied biomaterials standards report, 257
Applied biomaterials standards report, 331
—; Chang, M. K. O.; Andriano, K. P.; Heller, J.: Mechanical properties of biodegradable polymers and composites proposed for internal fixation of bone, 57
Deshpandey, C. V. See Kossovsky, N., 289
Didisheim, P. See Schoen, F. J., 49
Dobbins, J. J. See Schoen, F. J., 49
Doerr, H. J. See Kossovsky, N., 289
Ducheyne, P. See Koeneman, J., 79
—; See Wolfarth, D., 3

Edlich, R. F. See Bond, R. F., 39
Emmanual, J. See Szivek, J. A., 241
England, B. G. See Benghuzzi, H. A., 233

Filiaggi, M. See Wolfarth, D., 3
Fu, Y. A. See Chiang, C. T., 321

Gealer, R. G. See Szivek, J. A., 241
Geller, H. M. See Wong, E., 225
Gelman, A. See Kossovsky, N., 289
Gill, F. See Charara, J., 279
Glöbel, B. See Hopf, T. W., 215
Gona, A. G. See Ricci, J. L., 103
Goodis, H. E.
—; White, J. M.; Watanabe, L. G.: A device to cool the dental pulp, 249
Gristina, A. G. See Schoen, F. J., 49
Groot, K. de. See Wüstefeld, M., 153, 167
Guidon, R. See Charara, J., 279
Gupta, B. S.
—; Milam, B. L.; Patty, R. R.: Use of carbon dioxide laser in improving knot security in polyester sutures, 121
Guzman, R. See Charara, J., 279

Harasaki, H. See Schoen, F. J., 49
Heller, J. See Daniels, A. U., 57
Hitomi, S. See Tseng, Y.-C., 111
Hopf, T. W.
—; Glöbel, B.: The radioactivity of X-ray contrast material in PMMA bone cement, 215
Hum, L. L.
—; MacGregor, D. C.; Mayer, D. W.; Pinchuk, L.; Stokes, K.; Szycher, M.; Tay, S. W.: Letter to the Editor, 193
Hyon, S.-H. See Tseng, Y.-C., 111

Ikada, Y. See Tseng, Y.-C., 111

Jones, G. T. See Manske, P. R., 255

Kaplan, A.
—; Sauvage, L. R.; Kaplan, S.; Marcoe, K. F.; Mungin, D.; Wu, H.-D.; Walker, M.: A new method for measuring permeability of bio-impregnated textile grafts, 127
Kaplan, S. See Kaplan, A., 127
Karpman, R. See Szivek, J. A., 183
Kawafuku, J. See Nakayama, Y., 307
Kay, J. See Koeneman, J., 79
King, R. See Batich, C., 195
Klein, D. M.
—; Tyomkin, I.; Miller, B.; Rebenfeld, L.: Pore volume distribution of artificial skin by liquid extrusion analysis, 137
Koeneman, J.
—; Lemons, J.; Ducheyne, P.; Lacefield, W.; Magee, F.; Calahan, T.; Kay, J.: Workshop on characterization of calcium phosphate materials, 79
Kokubo, T. See Taguchi, Y., 217
Kossovsky, N.
—; Bunshah, R. F.; Gelman, A.; Sponsler, E.; Umarjee, D. M.; Suh, T.-G.; Prakash, S.; Doerr, H. J.; Deshpandey, C. V.: A non-denaturing solid phase pharmaceutical carrier comprised of surface-modified nanocrystalline materials, 289
Kotoura, Y. See Nakayama, Y., 307
Kumar, P. See Nakayama, Y., 307
Kusy, R.P. See Whitley, J. Q., 315

Lacefield, W. See Koeneman, J., 79
Leiah, M. D. See Ricci, J. L., 103
Lemons, J. See Koeneman, J., 79
Linsky, C. See Meislin, R. J., 13
Liou, F. J. See Chiang, C. T., 321

MacGregor, D. C. See Hum, L. L., 193
Magee, F. See Koeneman, J., 79
Magee, F. P. See Szivek, J. A., 241
Manske, P. R.
—; Jones, G. T.; Wiseman, D. M.: Communication: comment on "A biomechanical study of tendon adhesion reduction using a biodegradable barrier in a rabbit model," 255
Marcoe, K. F. See Kaplan, A., 127
Marshall, G. W., Jr. See Bagby, M., 31
Marshall, S. J. See Bagby, M., 31
Mayer, D. W. See Hum, L. L., 193
McGregor, W. See Bond, R. F., 39
Meislin, R. J.
—; Wiseman, D. M.; Alexander, H.; Cunningham, T.; Linsky, C.; Carlstedt, C.; Pitman, M.; Casar, R.: A biomechanical study of tendon adhesion reduction using a biodegradable barrier in a rabbit model, 13
Meunier, A. See Christel, P., 205
Milam, B. L. See Gupta, B. S., 121
Miller, B. See Klein, D. M., 137
More, R. B.
—; Silver, M. D.: Pyrolytic carbon prosthetic heart valve occluder wear: *In vivo* vs. *in vitro* results for Bjork-Shiley prosthesis, 267
Mungin, D. See Kaplan, A., 127

Nakamura, T. See Taguchi, Y., 217
Nakayama, Y.
—; Yamamuro, T.; Kumar, P.; Shimizu, K.; Kotoura, Y.; Oka, M.; Kawafuku, J.; Takashima, T.: Anodic polarization

measurements of orthopaedic implant alloys in bovine serum albumin, 307
Nishimura, N. See Taguchi, Y., 217
Niu, G. C. C. See Chiang, C. T., 321

Oka, M. See Nakayama, Y., 307

Padmanathan, N. See Truong, V.-T., 21
Parsons, J. R. See Zimmerman, M. C., 295
Patty, R. R. See Gupta, B. S., 121
Pinchuk, L. See Hum, L. L., 193
Pitman, M. See Meislin, R. J., 13
Prakash, S. See Kossovsky, N., 289
Prewitt, M. J. See Whitley, J. Q., 315

Rebenfeld, L. See Klein, D. M., 137
Recum, A. F. von. See Black, J., 253
Ricci, J. L.
—; Alexander, H.; Gona, A. G.; Lelah, M. D.: *In vitro* tendon cell colony growth rates on synthetic fibers, 103
Rizvi, A. See Wong, E., 225

Salman, N. N.
FDA—Medical device news corner: Outline for the premarket approval (PMA) application, 259
FDA—Medical device news corner: The export dilemma facing the U.S. medical device industry, 333
FDA—Medical device news corner: Tips on conducting investigational clinical studies under IDE regulations, 95
Satris, S. A. See Black, J., 253
Sauvage, L. R. See Kaplan, A., 127
Sawyer, P. N.
Development and application of modern devices in vascular surgery including comment on modern antithrombotic and lytic drug therapy, 143
Scalzo, H. See Zimmerman, M. C., 295
Schoen, F. J.
—; Anderson, J. M.; Didisheim, P.; Dobbins, J. J.; Gristina, A. G.; Harasaki, H.; Simmons, R. L.: Ventricular assist device (VAD) pathology analyses: Guidelines for clinical study, 49
Shimizu, K. See Nakayama, Y., 307
Shimizu, Y. See Tseng, Y.-C., 111
Silver, F. H. See Wong, E., 225
Silver, M. D. See More, R. B., 267
Simmons, R. L. See Schoen, F. J., 49
Solomon, D. D.
Patent news, 335
Sponsler, E. See Kossovsky, N., 289
Stokes, K. See Hum, L. L., 193
Suh, T.-G. See Kossovsky, N., 289
Szivek, J. A.
—; Gealer, R. G.; Magee, F. P.; Emmanual, J.: Preliminary development of a hydroxyapatite-backed strain gauge, 241
—; Weng, M.; Karpman, R.: Variability in the torsional and bending response of a commercially available composite "femur," 183
Szycher, M. See Hum, L. L., 193

Taguchi, Y.
—; Yamamuro, T.; Nakamura, T.; Nishimura, N.; Kokubo, T.; Takahata, E.; Yoshihara, S.: A bioactive glass powder-ammonium hydrogen phosphate composite for repairing bone defects, 217
Takahata, E. See Taguchi, Y., 217
Takashima, T. See Nakayama, Y., 307
Tamura, K. See Tseng, Y.-C., 111
Tay, S. W. See Hum, L. L., 193
Thacker, J. G. See Bond, R. F., 39
Therin, M. See Christel, P., 205
Truong, V.-T.
—; Cock, D. J.; Padmanathan, N.: Fatigue crack propagation in posterior dental composites and prediction of clinical wear, 21
Tseng, Y.-C.
—; Hyon, S.-H.; Ikada, Y.; Shimizu, Y.; Tamura, K.; Hitomi, S.: *In vivo* evaluation of 2-cyanoacrylates as surgical adhesives, 111
Tyomkin, I. See Klein, D. M., 137

Umarjee, D. M. See Kossovsky, N., 289

Walker, M. See Kaplan, A., 127
Wang, Y. J. See Chiang, C. T., 321
Watanabe, L. G. See Goodis, H. E., 249
Weng, M. See Szivek, J. A., 183
White, J. M. See Goodis, H. E., 249
Whitley, J. Q.
—; Prewitt, M. J.; Kusy, R. P.: Relationship of the diameter and tensile strength of nylon sutures to the USP specification and the effect of preconditioning, 315
Williams, J. See Batich, C., 195
Wiseman, D. M. See Jones, P. R., 255
—; See Meislin, R. J., 13
Wolfarth, D.
—; Filiaggi, M.; Ducheyne, P.: Parametric analysis of interfacial stress concentrations in porous coated implants, 3
Wong, E.
—; Christiansen, D.; Rizvi, A.; Geller, H. M.; Silver, F. H.: A method for preparation of etched collagen fibers that support neurite outgrowth, 225
Wu, H.-D. See Kaplan, A., 127
Wüstefeld, M.
—; de Groot, K.: Patent literature as a source of information for research and development: An investigation on calcium phosphate-containing biomaterials, Part II, 153
—; de Groot, K.: Patent literature as a source of information for research and development: An investigation on calcium phosphate-containing biomaterials, Part III, 167

Yamamuro, T. See Nakayama, Y., 307
—; See Taguchi, Y., 217
Yoshihara, S. See Taguchi, Y., 217

Zimmerman, M. C.
—; Scalzo, H.; Parsons, J. R.: The attachment of hydroxylapatite coated polysulfone to bone, 295

Subject Index — Volume 1

Adhesion formation, 13
ALCAP, 233
American Society for Testing & Materials (ASTM), 93
Ammonium–hydrogen–phosphate, 217
Anasthesia, 249
Androgens, 233
Anodic polarization measurement, 307
Aqueous humor draining device, 321
Artificial bones, 183
Artificial hearts, 49
Artificial skin, 137
Axon, 225

Balloons, 143
Bending response, artificial bones, 183
Bioactive glass powder, 217
Bioceramics, 153, 167
Biocompatibility, 205, 321
Biodegradable barrier, 255
Biodegradation, 57
Bjork–Shiley prosthesis, 267
Blood, 315
Blood access, 279
Bone cement, 217
Bone defect filler, 217
Bovine serum albumin, 307

Calcium phosphate, 153, 167
Calcium phosphate ceramics, 79, 153
Carbon dioxide laser, 121
Cell digitization, 205
Cell growth, 103
Ceramic bone filler, 217
Ceramics, 233
Ceramometal restorations, 31
Collagen, 225
Collagenase, 225
Composites, 57
Computer-assisted cell counting, 205
Cooling, 249
Corrosion, 307
Curved surgical needles, 39
2-Cyanoacrylates (CA), 111

Dental composites, 21
Dental device, 249
Dental pulp cooling, 249
Distortion, 31
Drug delivery, 289
Drug delivery systems, 233
Drug therapy, 143

Encapsulating membrane, 205
ePTFE, 279
Ethics, 91

Fatigue resistance, 21
FDA, 95
Fracture toughness, 21

Geometric parameters, 3

Hemodialysis, 279
Hertzian impact wear theory, 267
Histological technique, 205
Historical review, 79
Hydroxyapatite, 79
Hydroxyapatite (CHA), 241
Hydroxylapatite (HA) coated polysulfone (PS), 295
Hydroxylapatite (HA) surface coatings, 295

IDE regulations, 95
Implantable devices, 233
INTERCEED (TC7)™, 13
Internal fixation, 57
in vitro, 103, 267
in vivo, 111, 267
in vivo strain sensing, 241

Knot slippage, 121

Lasers, 143
Liquid extrusion analysis, 137

Materials characterization, 79
Mechanical properties, 57
Metals, 31
Microcirculation, 249

Nanocrystalline, 289
Needle holder jaw configuration, 39
Needle trauma, 279
Nerve growth, 225
Nylon, 315

Orthopaedic implant alloy, 307
Oxides, 31

Paste, 217
Patent literature, 153, 167
Patents, 335
Pitting potential, 307
PMMA bone cement, 215
Polyester sutures, 121
Poly-HEMA, 321
Polymeric biomaterial, 57
Polysulfone (PS) implants, 295
Porous coated implants, 3
Pulp biology, 249
Puncture, 279
Pyrolytic carbon (Pyrolite® carbon) valve occluders, 267

Radioactivity, 215

Statistical model, 205
Strain gauge, 241
Stress concentrations, 3
Surface modification, 289
Surgical adhesives, 111
Sutures, 315
Synthetic fiber materials, 103

Tendon adhesion reduction, 255
Tendon growth rates, 103
Tendon surgery, 13
Tensile strength, 315
Testosterone, 233
Textile prostheses, 127
Tin oxide, 289
Tissue biocompatibility, 205
Torque response, artificial bones, 183
Tricalcium phosphate, 79
Tungsten carbide, 39

USP specification, 315

Vaccine, 289
Vascular surgery, 143
Ventricular assist devices (VADs), 49

Water permeability, 127
Wear, 21

X-ray contrast material, 215
X-ray diffraction, 31